

Reservoir Storage Outlook

March 15, 2012



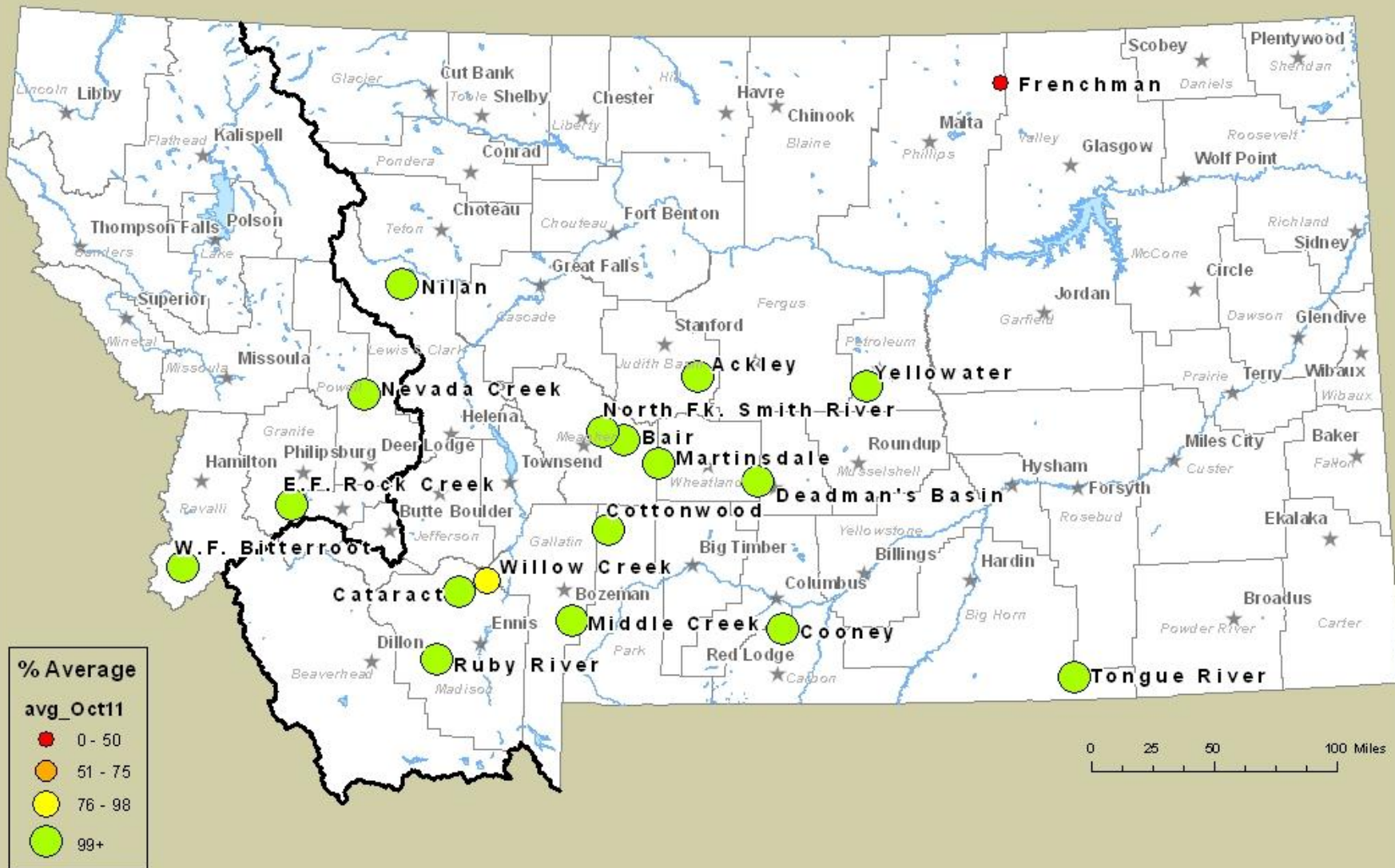
DNRC Water Resources Division
State Water Projects Bureau

Montana DNRC State Water Projects Bureau Reservoirs



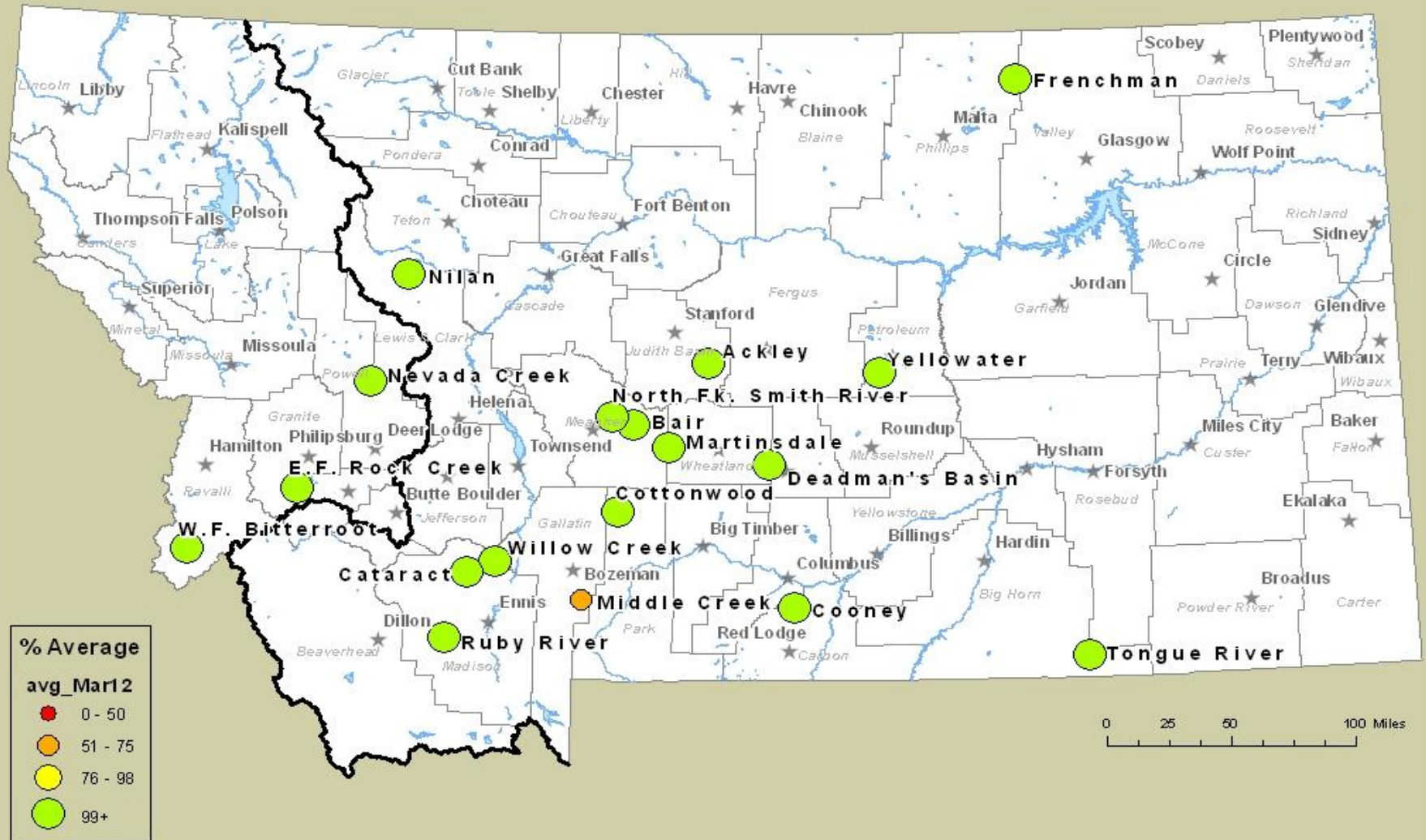
Reservoir Contents Report

October 13, 2011



Reservoir Contents Report

March 15, 2012



MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

WATER RESOURCES DIVISION - STATE WATER PROJECTS BUREAU

February 29, 2012

All Contents in Acre-Feet

RESERVOIR	TOTAL CAPACITY (includes dead storage)*	CONTENTS				% CAPACITY 2/29/2012	%AVERAGE 2/29/2012	READING DATE	COMMENTS
		AVERAGE	Last Year	Last Month	PRESENT				
	Full Pool	1960 - 2011	2/28/2011	1/31/2012	2/29/2012				
	Contents								
ACKLEY	6,140	3,189	4,029	3,873	3,873	63	121	2/28/2012	volume estimated
BAIR	7,300	3,817	5,750	5,600	5,600	77	147	2/29/2012	volume estimated
CATARACT	1,478	377	276	412	412	28	109	2/28/2012	volume estimated
COONEY	28,230	18,640	18,956	18,100	18,626	66	100	3/2/2012	from J. Krook el.=4237.82 (18,536 AF)
COTTONWOOD	1,900	746	1,384	1,072	1,072	56	144	2/28/2012	volume estimated
DEADMAN'S BASIN	75,968	45,519	65,107	66,889	67,000	88	147	2/29/2012	volume estimated
E.F. ROCK CREEK	16,040	9,042	12,183	11,149	11,869	74	131	3/1/2012	from data logger el.=6044.2
FRENCHMAN	2,777	1,571	2,777	2,416	2,640	95	168	2/27/2012	from G. Yeska el.=2264.35
MARTINSDALE	23,348	8,555	18,080	8,651	9,000	39	105	2/29/2012	volume estimated
MIDDLE CREEK	10,184	6,139	6,566	5,134	4,496	44	73	3/1/2012	from data logger el.=6690.4
NEVADA CREEK	11,207	5,572	8,665	7,199	7,699	69	138	2/28/2012	from K. McGuire el.=4605.7
NILAN	10,992	6,444	7,338	8,361	8,577	78	133	2/29/2012	from J. Wolfe el.=4437.6 (7,677 AF)
N.F.K. SMITH RIVER	11,406	6,257	8,500	7,500	8,000	70	128	2/29/2012	volume estimated
RUBY RIVER	36,633	26,892	29,347	28,036	33,228	91	124	2/29/2012	from T. Benn el.=5388.39
TONGUE RIVER	79,071	44,005	54,089	54,366	60,570	77	138	3/1/2012	from Data Logger el.=3423.0
W.F. BITTERROOT	32,362	5,951	13,139	8,677	8,623	27	145	2/29/2012	from A. Pernichele el.=4672.2
WILLOW CREEK	18,000	14,264	15,411	13,000	16,066	89	113	3/4/2012	from L. Kinne el.=4733.56
YELLOWATER	3,842	969	2,268	3,203	3,138	82	324	2/23/2012	from S. Sundheim el.=3116.6

* Note: Reservoir contents include dead storage at the following:

Ackley 1001 AF **
Cooney 90 AF **
Deadman's 3750 AF **
Nilan 900 AF **

** O&M slope storage table does not include dead storage (so dead storage has to be added into the storage from the table)
Tongue River 711 AF (O&M storage table includes dead storage)
W. F. Bitterroot 656 AF (O&M storage table includes dead storage)
Willow Creek 269 AF (O&M storage table includes dead storage)

* Note: Cooney capacity reflects capacity after 1982 dam rehabilitation; prior capacity was 24,195 A.F.. Average storage shown is for post rehabilitation data.

* Note: Middle Creek capacity reflects capacity after 1993 dam rehabilitation; prior capacity was 8,027 A.F.. Average storage shown is for post rehabilitation data.

* Note: Nevada Creek Reservoir Capacity reflects live storage capacity survey conducted in year 2000. Prior live storage capacity documented as 12,723 AF.

* Note: Ruby River capacity reflects capacity at concrete crest elevation; capacity at top of flashboards is 37,612 A.F.

* Note: Tongue River capacity reflects capacity after 1999 dam rehabilitation; prior capacity was 68,040 A.F.. Average storage is post rehabilitation data.

* Note: Frenchman Reservoir capacity tables updated based on aerial survey; prior capacity was 3752 A.F. Average shown is pre aerial survey

MONTANA SNOTEL Snow Water Equivalent Update Graph

As of WEDNESDAY: MARCH 14 , 2012

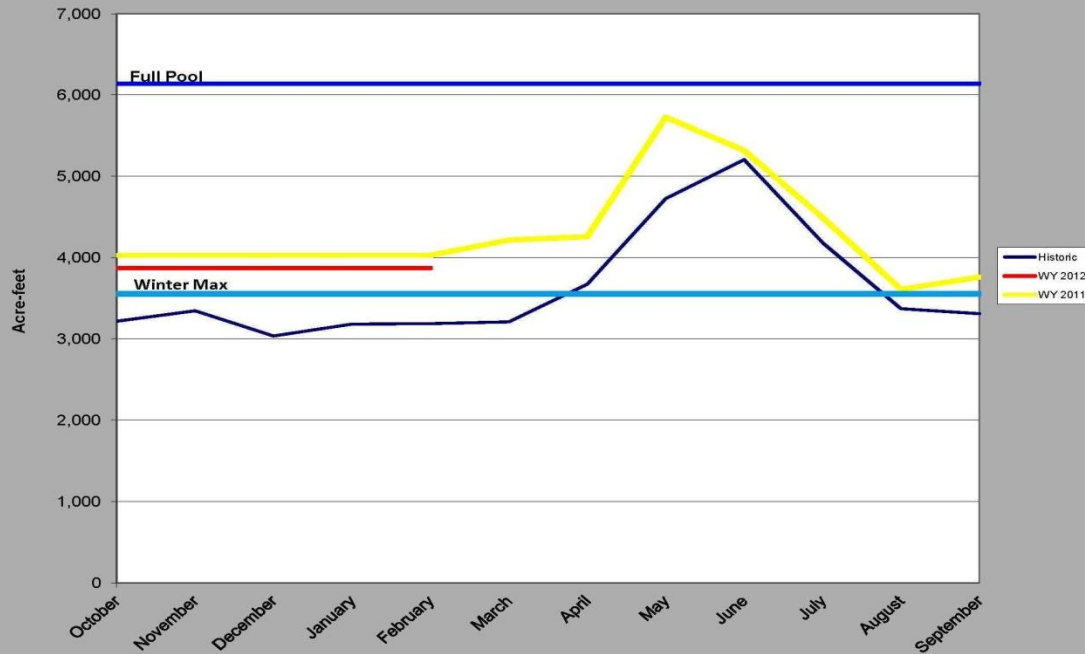
Basin	Snow Water Equivalent Percent of Average
KOOTENAI RIVER BASIN	112%
FLATHEAD RIVER BASIN	98%
UPPER CLARK FORK RIVER BASIN	96%
BITTERROOT RIVER BASIN	104%
LOWER CLARK FORK RIVER BASIN	101%
JEFFERSON RIVER BASIN	84%
MADISON RIVER BASIN	81%
GALLATIN RIVER BASIN	84%
MISSOURI HEADWATERS	84%
HEADWATERS MISSOURI MAINSTEM	111%
SMITH, JUDITH, AND MUSSELSHELL RIVER BASINS	108%
SUN, TETON AND MARIAS RIVER BASINS	109%
MISSOURI MAINSTEM RIVER BASIN	108%
ST MARY AND MILK RIVER BASINS	101%
UPPER YELLOWSTONE RIVER BASIN	95%
WIND RIVER BASIN (WYOMING)	93%
SHOSHONE RIVER BASIN (WYOMING)	96%
BIGHORN RIVER BASIN (WYOMING)	108%
TONGUE RIVER BASIN (WYOMING)	127%
POWDER RIVER BASIN (WYOMING)	121%
LOWER YELLOWSTONE RIVER BASIN	105%

Legend: ■ <70% ■ 70-90% ■ 91-110% ■ 111-130% ■ >130%

* = Data are not available or data may not provide a valid measure of conditions for over half of the sites within the basin.

Ackley Reservoir

(Historic, WY 2012 and WY 2011)



- 63% Capacity (estimated)

- 121% Average (estimated)

- Inflows=0 cfs

- Outflows=0 cfs

- 3,873 Acre-Feet (estimated)

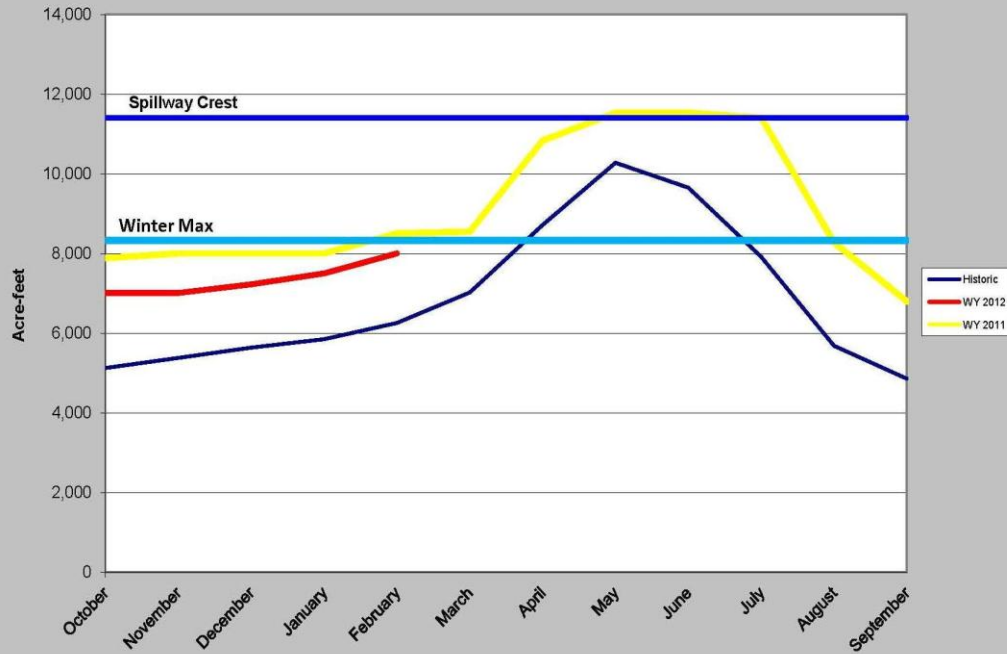
- Elevation=4310.3

- Water Supply is favorable



North Fork Smith River

(Historic, WY 2012, and WY 2011)



- 70% Capacity
(estimated)

- 128% average
(estimated)

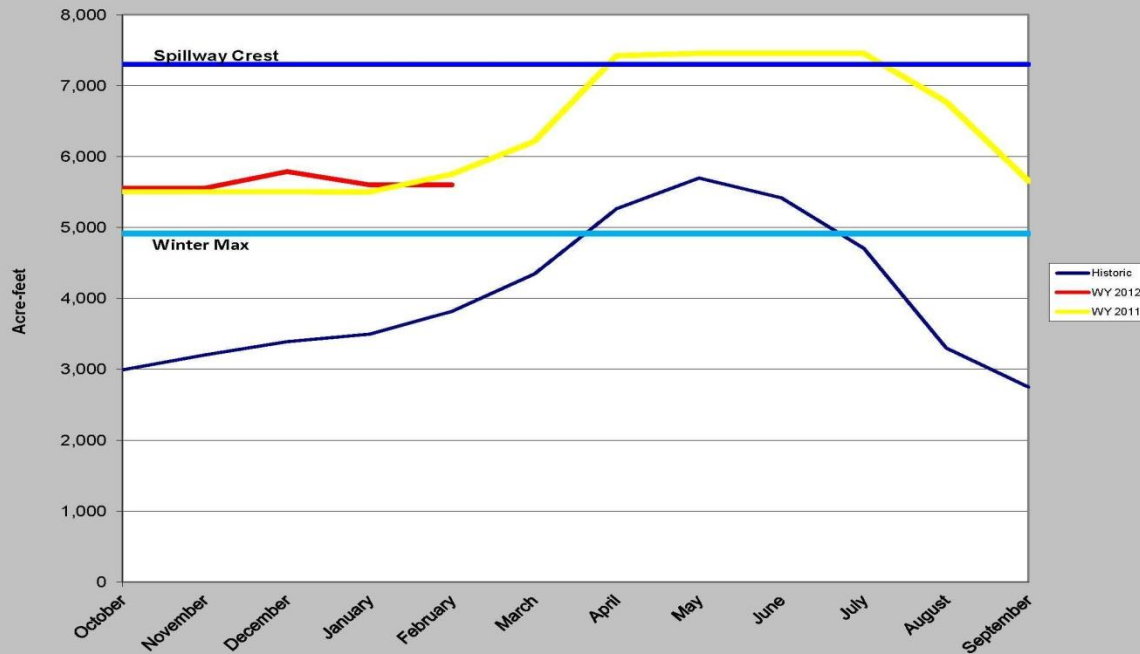
- 8,000 Acre-Feet
(estimated)

- Water Supply is
favorable



Bair Reservoir

(Historic, WY 2012, and WY 2011)



- 77% Capacity (estimated)

- 147% average (estimated)

- 5,600 Acre-Feet (estimated)

- Inflows=5 cfs

- Outflows=5 cfs

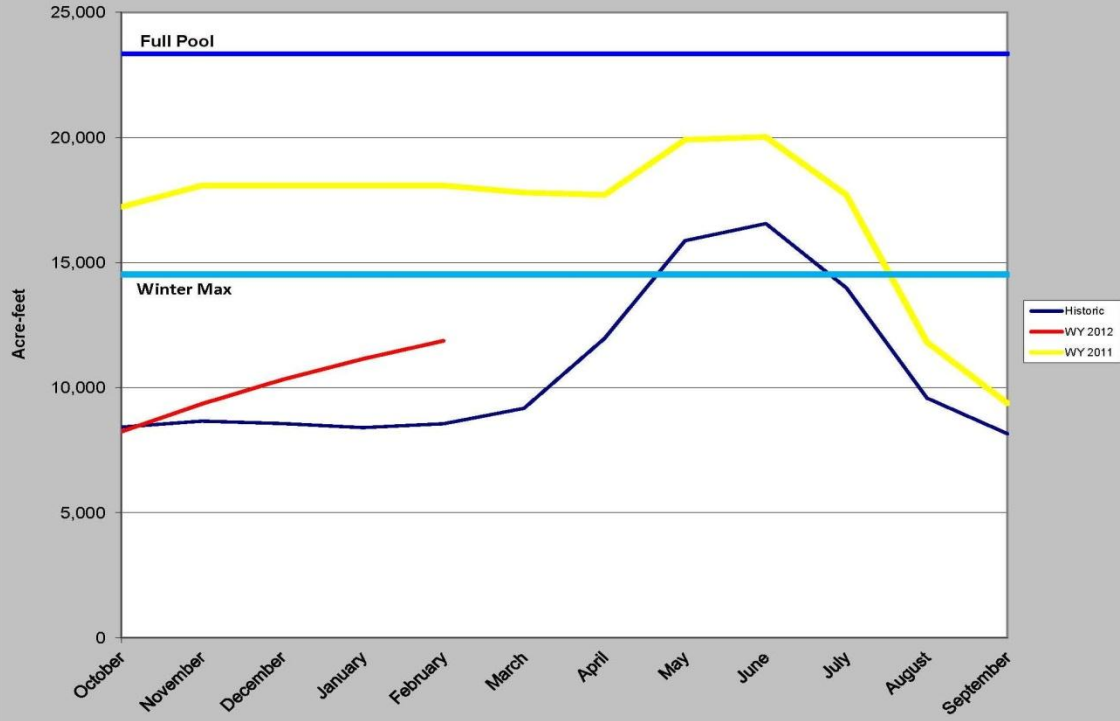
- Elev.=5318.26

- Water Supply is favorable



Martinsdale Reservoir

(Historic, WY 2012, and WY 2011)



- 39% Capacity

- 105% average

- 9,000 Acre-Feet (estimated)

- Inflows=20 cfs

- Outflows=0 cfs

- Elev.=4760.7

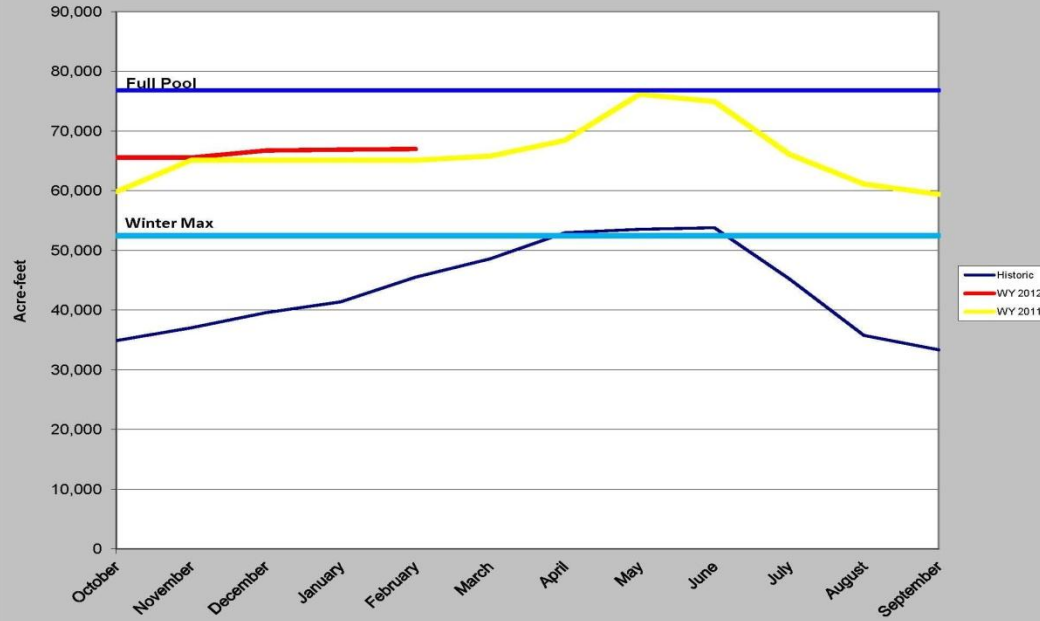
- Toe Drain Rehab completed

- Water Supply is favorable



Deadman's Basin

(Historic, WY 2012 and WY 2011)



- 88% Capacity

- 147% average

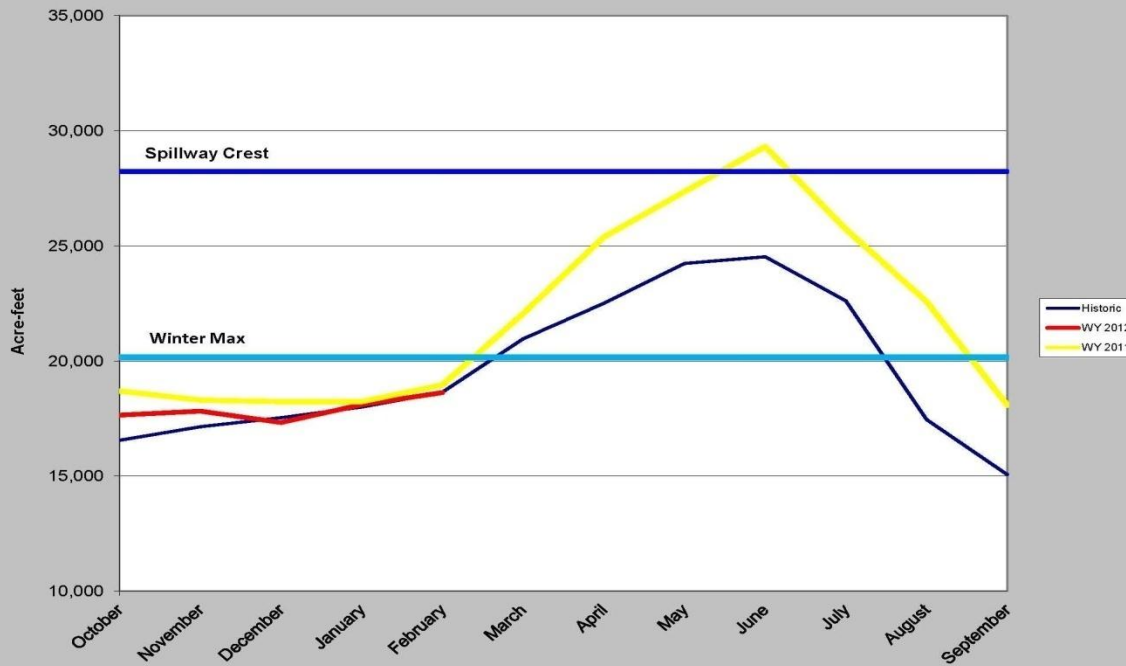
- 67,000 Acre-Feet (estimated)

- Water Supply is favorable



Cooney Reservoir

(Historic, WY 2012, and WY 2011)

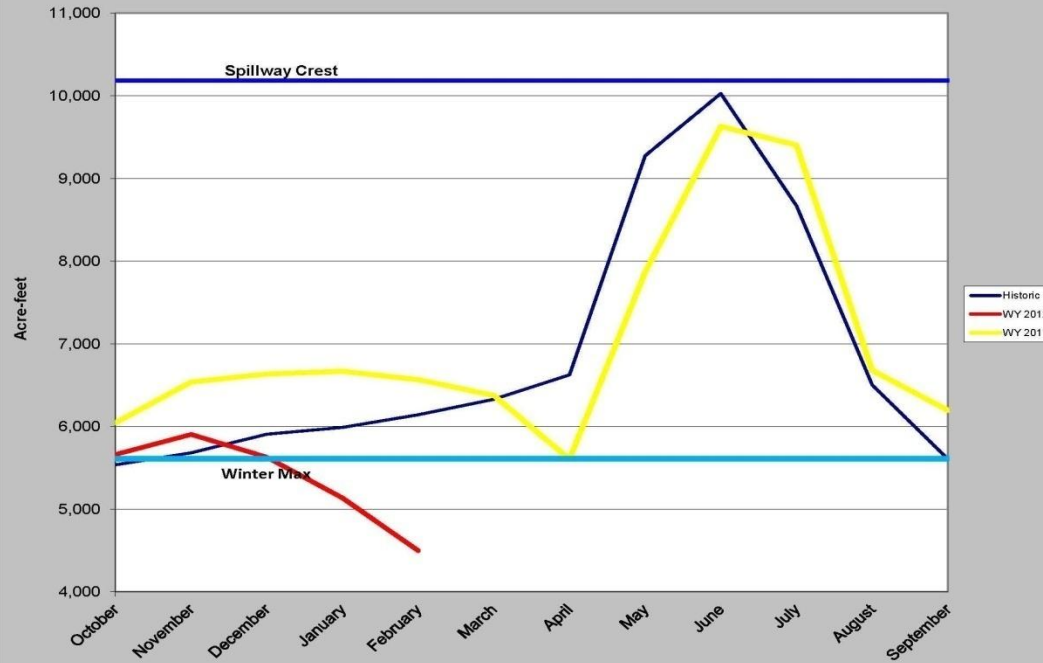


- 66% Capacity
- 100% average
- 18,626 Acre-Feet
- Elev.=4237.82
- Water Supply is favorable



Middle Creek Reservoir

(Historic, WY 2012, and WY 2011)

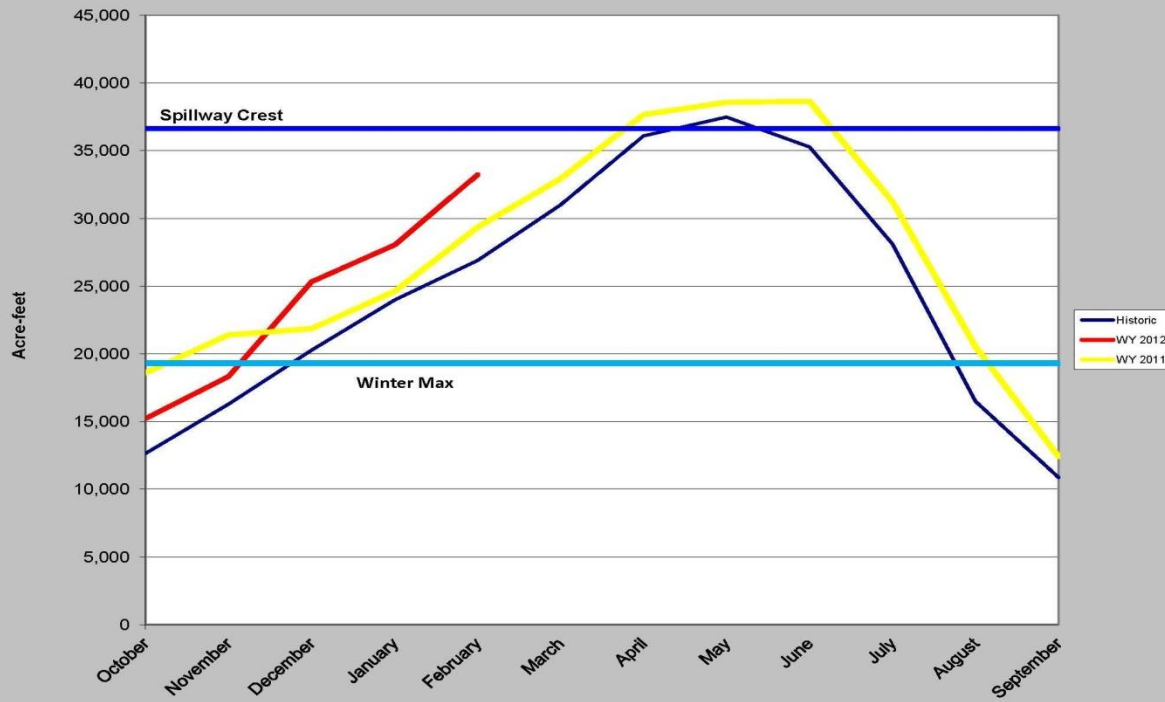


- 44% Capacity
- 73% Average
- Outflows~18 cfs
- 4,496 Acre-Feet
- Elev.=6,690.4
- Water Supply is favorable



Ruby Reservoir

(Historic, WY 2012, and WY 2011)

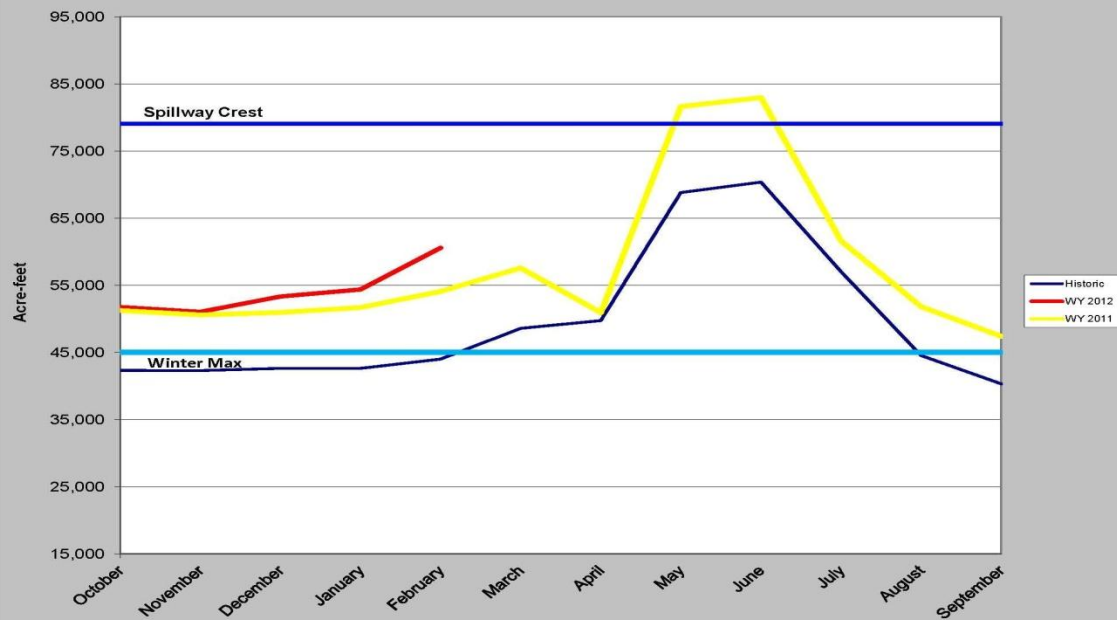


- 91% Capacity
- 124% average
- 33,228 Acre-Feet
- Elev.=5388.39
- Spillway rehab work complete (Phase1)
- Water Supply is favorable



Tongue River

(Historic, WY 2012 and WY 2011)

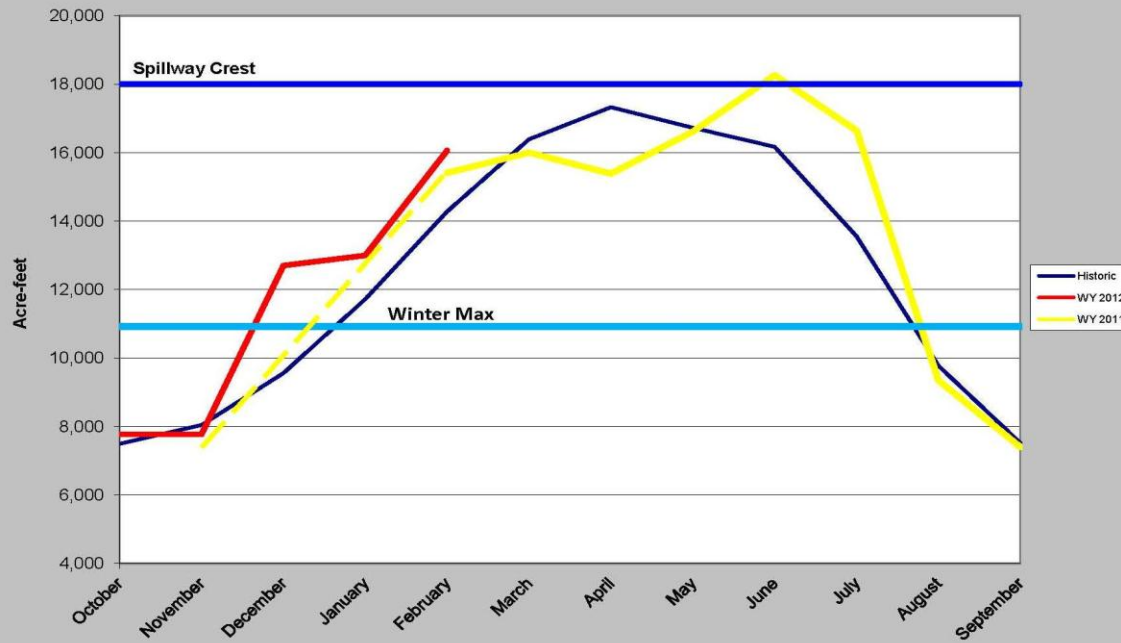


- 77% Capacity
- 138% Average
- 60,570 Acre-Feet
- Elev.=3423.0
- Water Supply is favorable



Willow Creek Reservoir

(Historic, WY 2012, and WY 2011)

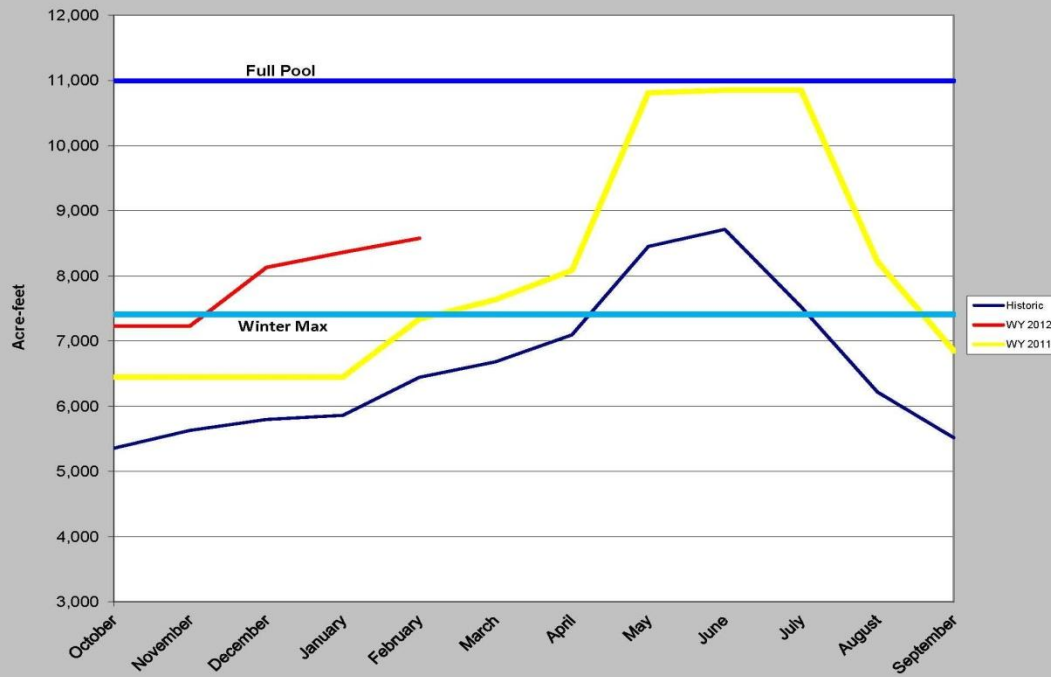


- 89% Capacity
- 113% average
- 16,066Acre-Feet
- Elev.=4733.56
- Water Supply is favorable



Nilan Reservoir

(Historic, WY 2012, and WY 2011)

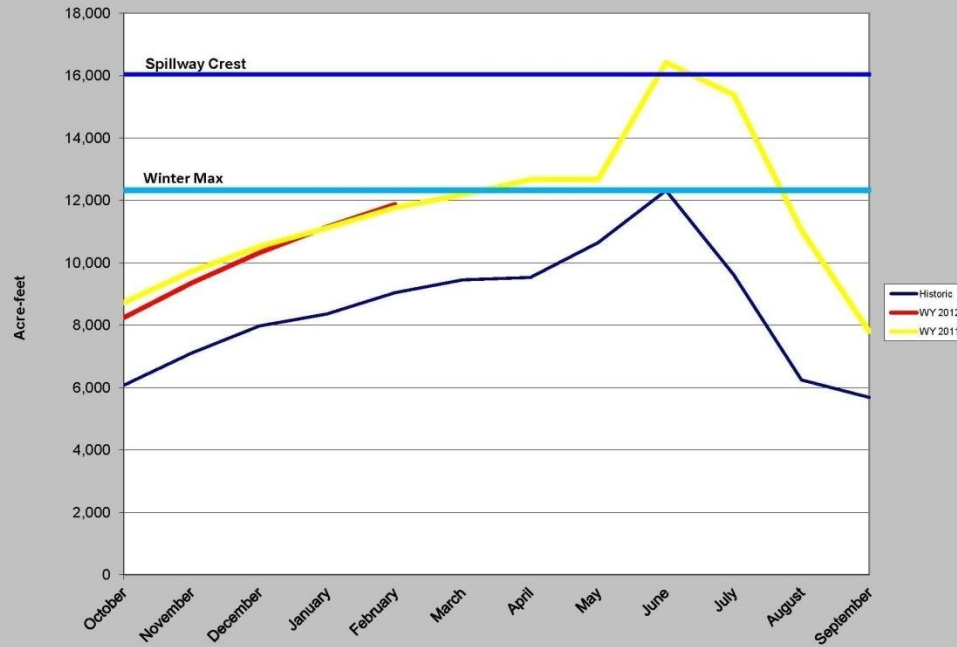


- 78% Capacity
- 133% average
- 8,577 Acre-Feet
- Elev.=4437.6
- Water Supply is favorable



East Fork Rock Creek Reservoir

(Historic, WY 2012, and WY 2011)

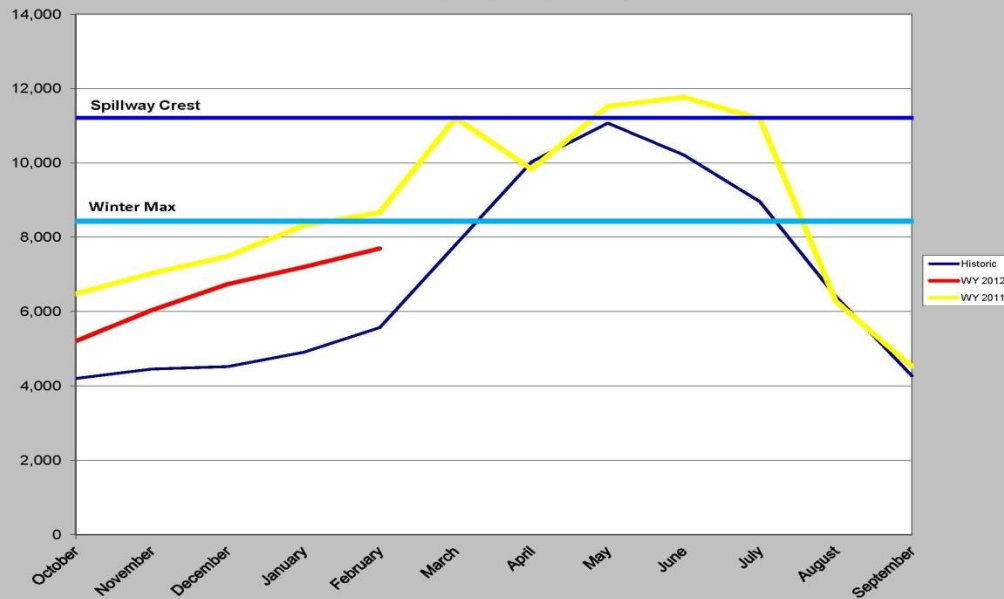


- 74% Capacity
- 131% average
- 11,869Acre-Feet
- Elev.=6044.2
- Water Supply is favorable



Nevada Creek Reservoir

(Historic, WY 2012, and WY 2011)

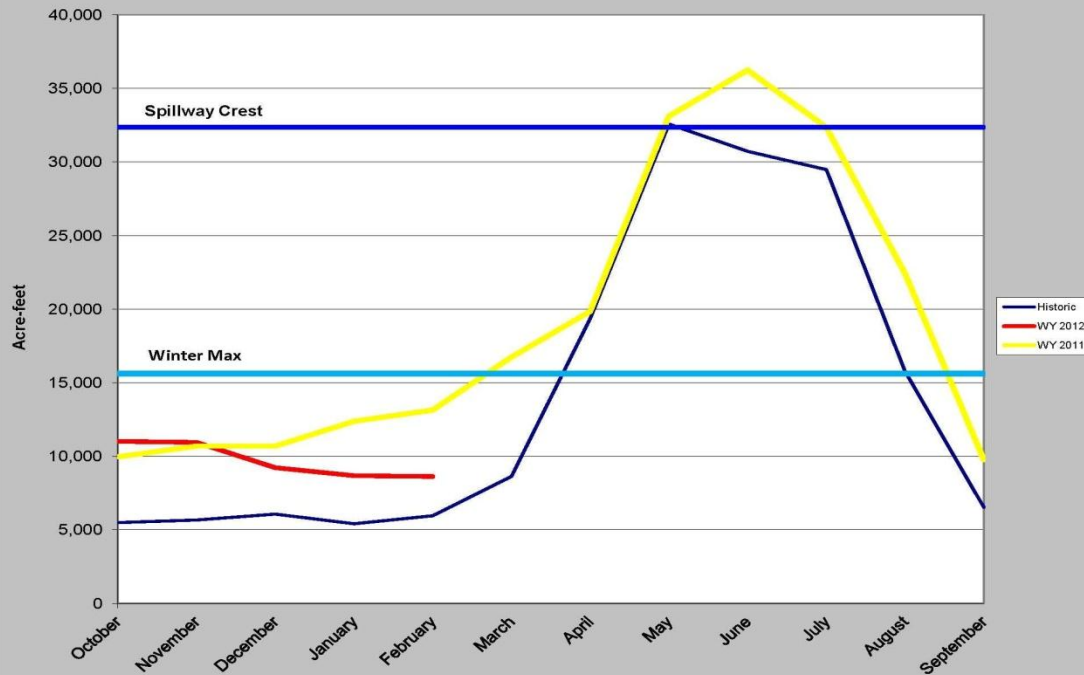


- 69% Capacity
- 138% average
- 7,699Acre-Feet
- elev.=4605.7
- Water Supply is favorable



Painted Rocks Reservoir

(Historic, WY 2012 and WY 2011)



- 27% Capacity
- 145% average
- 8,623 Acre-Feet
- Elev.=4672.2
- Water Supply is favorable



Summary

- Winter Carryover provided good start to WY 2012
- Majority of Reservoirs at or above Historic Averages
- Majority of Reservoirs at or above same level as last year (WY 2011)
- “Maintaining” phase for some reservoirs with average/above average snowpack
- Rehab Projects-Ruby complete, and canal projects underway
- Water Supply Outlook is favorable for DNRC-SWP Reservoirs